



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,415	10/19/2001	Michael T. Larsen	6636	9959

22922 7590 04/04/2003

REINHART BOERNER VAN DEUREN S.C.
ATTN: LINDA GABRIEL, DOCKET COORDINATOR
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 04/04/2003 //

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,415

Applicant(s)

LARSEN ET AL.

Examiner

Frank M. Lawrence

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9, 15, 17, 18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9, 15, 17, 18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 18 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on February 18, 2003 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Aaltonen et al.

(4,886,528; abstract; figures; col. 1, lines 5-12; col. 3, lines 15-55).

4. Aaltonen et al. ('528) teach a water separator for a gas analyzer, comprising a closed container having an inlet port (12), outlet port (10), a suction pump-connected port (11), a water collection chamber (15), a liquid trap filter chamber (4) integral with the container, an inlet compartment (17) within the chamber between the inlet port and outlet port, an upper outlet in the compartment connected to the outlet port (10), a lower outlet (13) connected to the collection chamber (15), an outlet compartment (18) separated from the inlet compartment in communication between the collection chamber and suction port (11) having an upper outlet and lower inlet (14), a porous, water-impermeable filter membrane (3) supported in the inlet compartment located between the inlet and outlet ports for separating liquid from incoming gas

Art Unit: 1724

and directing the liquid to the collection chamber via the lower outlet (13), a second porous, water-impermeable filter membrane supported in the outlet compartment (18) between its inlet and outlet, and a cover (1) that encloses the filter element within the inlet compartment and has a concave (hollowed) inner surface that engages the filter element between the cover and outlet barrier, wherein the upper outlets define outlet barriers between the filters and outlet ports, and the cover separates the inlet and outlet compartments. The inlet and outlet compartments each comprise a horizontally arranged cylindrical cavity that includes left and right end walls with a side-wall surrounding the filter membrane as shown on figures 1-4 with the outlet defined on the side-wall adjacent to the right end wall and the membrane overlying the side-wall. The left end wall or the left portion of the side-wall may be interpreted as a forward wall and the right end wall or right portion of the side-wall may be interpreted as a back wall, as depicted in the figures.

5. Claims 2-4, 7, 17 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aaltonen et al. ('528) in view of the German reference (DE 10014829 A1; see paragraph 0046; figure 2).

6. Aaltonen et al. ('528) disclose a water separator that anticipates the claims as discussed in paragraph 4 above. Also disclosed is that a different filter compartment arrangement can be use with a flat filter extending between front and back walls that define inlet and outlet ports. DE '829 discloses a water trap for connection to a breath monitoring device, comprising a closed container (10) having an inlet port (220), outlet port (330), a negative pressure-connected port (280), a water collection chamber (60), a liquid trap filter chamber (20) integral with the container, an inlet compartment within the chamber (20) between the inlet port and outlet port, an upper outlet in the compartment connected to the outlet port (330), a lower outlet (270)

Art Unit: 1724

connected to the collection chamber (60), an outlet compartment formed by a conduit in communication between the collection chamber and negative pressure port, and a liquid trap filter membrane (260) in the compartment located between the inlet and outlet ports for separating liquid from incoming gas and directing the liquid to the collection chamber via the lower outlet (270), wherein the upper outlet defines a barrier between the filter and outlet port, and the filter chamber (20) forms a cover that encloses the filter element within the inlet compartment and separates the inlet and outlet compartments.

7. If the walls of the inlet and outlet compartments in Aaltonen et al. ('528) are not interpreted to anticipate the back wall portions that define the upper outlet and are overlayed by the filter elements, it is considered obvious to alter the arrangement of the compartments using the disclosure of DE '829 of a filter element extending between front and back walls that define the inlet and outlet ports, respectively (see figure 2), in order to utilize a flat filter type that is simple in manufacture and less expensive than a cylindrical filter.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen et al. ('528) in view of Kashmer et al. (4,465,485; col. 7, lines 8-63).

10. Aaltonen et al. ('528) disclose all of the limitations of the claims except that the filter elements are membranes bearing a PTFE laminate. Kashmer et al. ('485) disclose a fluid-

Art Unit: 1724

conducting suction container having a PTFE laminated filter element for passing gases while preventing aerosol or droplets from passing through. It would have been obvious to one having ordinary skill in the art at the time of the invention to use a PTFE laminated filter element for separating moisture from gas in the Aaltonen et al. ('528) device in order to provide a material having an appropriate porosity that passes gas while being impermeable to liquids and having sufficient strength to resist pressure.

11. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen et al. ('528) in view of Larsen et al. (4,924,860; abstract; col. 3, lines 9-28).

12. Aaltonen et al. ('528) discloses all of the limitations of the claims except that either one of the outlet or low-pressure ports contains a self-sealing filter. Larsen et al. ('860) disclose a water trap for a gas analyzer including self-sealing filters in the outlet and vacuum ports of the water trap. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the trap of Aaltonen et al. ('528) by including self-sealing filters in the outlet or low-pressure ports in order to provide a means to automatically protect the connected gas analyzer from liquid contamination by preventing the passage of liquid to the analyzer.

Response to Arguments

13. Applicant's arguments filed February 18, 2003 have been fully considered but they are not persuasive. Applicant argues that the Aaltonen et al. patent fails to disclose separate inlet and outlet compartments, each including an individual filter element contained and supported within the compartment in the flow path through the compartment with the filter elements recessed in the separate portions of the housing and enclosed by a cover, however these elements are shown in figures 1-4 of the patent as discussed in paragraph 4 above. With respect to claim

Art Unit: 1724

6, applicant argues that the Aaltonen et al. patent fails to disclose a liquid trap filter chamber including an inlet compartment having an upper outlet communicated with a sample outlet port and a lower outlet communicated with a liquid collection chamber, a liquid trap filter element contained and supported within the inlet compartment interposed between the sample inlet port and the sample outlet port for separating the liquid from the gas sample, the outlet compartment being separated from the inlet compartment and having an inlet communicated with the collection chamber and an outlet communicated with the low pressure port, and a second liquid trap filter element contained and supported within the outlet compartment interposed between the inlet and the outlet of the outlet compartment, however each of these limitations is fully disclosed in the patent as detailed in paragraph 4.

14. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a portion of the cover located intermediate the two compartments) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). These features are also taught by the Aaltonen et al. patent.

15. Applicant's arguments with respect to claims 17 and 20 have been considered but are moot in view of the new ground(s) of rejection. The newly added limitations concerning the walls of the compartments have been addressed in new rejections under 35 USC 102/103 (paragraphs 5-7 above). The 102(a) rejection over DE '829 has been withdrawn because the claims have been sufficiently amended to distinguish over the teaching the reference.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 703-305-0585. The examiner can normally be reached on Mon-Thurs 7:30-5:00; alternate Fridays 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Application/Control Number: 10/045,415
Art Unit: 1724

Page 8

fl *fl*
April 2, 2003

DUANE SMITH
PRIMARY EXAMINER
D-1A
4-2-03